

REMARKS

This is in response to the Office Action dated March 24, 2011. In view of the foregoing amendments and following representations, reconsideration is respectfully requested.

1. Claim Amendments

By the above amendments, claims 14-21 have been amended to more clearly distinguish over the prior art of record. Thus, claims 11-21 are currently pending in the present application. Claims 11-13 have been withdrawn from consideration. No new matter has been added.

2. Amendment to the Specification and Abstract

The specification and abstract have been reviewed and revised in order to make a number of minor clarifying and other editorial amendments. To facilitate entry of the revisions, a substitute specification and abstract has been prepared. No new matter has been added. Also enclosed is a "marked-up" copy of the original specification and abstract to show the changes that have been incorporated into the substitute specification and abstract. The enclosed copy is entitled "Version with Markings to Show Changes Made."

3. Rejection under 35 U.S.C. § 102(e)

On pages 2-3 of the Office Action, claims 14-21 are rejected under 35 U.S.C. § 102(e) as being anticipated by Gagne et al. (U.S. Patent Application Publication No. 2004/0211663). It is submitted that the present invention, as embodied by the amended claims, now clearly distinguishes over the Gagne reference for the following reasons.

Independent claim 14 has been amended to recite that the laser-based measuring apparatus is mounted on the crane, and that the laser-based measuring apparatus includes a laser cell, which is operable to emit a substantially vertical laser light and detect reflected laser light.

Gagne relates to a process and apparatus for imaging anodes suspended by a crane. The imaging apparatus is placed with a horizontal distance to the anode, which implies that the measurements are made at an angle (with a transversal component) with regard to the anode and its rod. As the measurements are made while the anodes are suspended by the crane, it is somewhat unclear how an accurate length measurement of the anode can be determined as the bottom surface of the anode (which can be uneven on a used anode) can be in a visual shadow with regard to the position of the imaging apparatus. Further, taking measurements of a suspended anode may also cause inaccuracies due to the fact that the anode may be swinging or pending about its suspension point. Even in an embodiment of this solution (ref. Fig. 9), there is indicated that a tag 75 is extended laterally of the anode rod and used as a reference. This supports further that the measurements are imaged from a lateral distance of the anode. Thus, the Gagne reference clearly lacks a measuring apparatus that emits a vertical laser light. Since the Gagne reference does not meet each and every limitation of amended claim 14, it cannot anticipate claim 14 under 35 U.S.C. 102.

Further, with reference to Figure 1a of the present application, the measuring equipment comprises a laser cell 3 installed inside a tight cabinet 4 with a vertical protection tube 5. The laser beam 7 shines through the tube towards a reflective tag 6 placed on an anode gripper 2. With this arrangement, the laser cell will measure the precise distance, in the vertical direction and without a transversal distance component. The tight cabinet, together with the protection tube and air overpressure that is supplied to the cabinet 4 via an air supply pipe 8, prevent

fluoride dust and gas from reaching the cell's lens. This combination is required in claim 17, and the claimed equipment will produce precise measurements without random measuring errors.

Therefore, in accordance to the present invention, the measurements can be performed by a laser based beam which is directed in parallel to the anode rod, i.e. in a vertical direction, while the anode bottom is resting on a reference level. Applicant submits that the present invention, as defined in independent claim 14, is directed to novel equipment for determining the correct insertion height of anodes in an electrolysis cell.


In view of the above, it is submitted that the present application is now clearly in condition for allowance. The Examiner therefore is requested to pass this case to issue.

In the event that the Examiner has any comments or suggestions of a nature necessary to place this case in condition for allowance, then the Examiner is requested to contact Applicant's undersigned attorney by telephone to promptly resolve any remaining matters.

Respectfully submitted,

Arnt Helge FIDJELAND

By



Michael S. Huppert
Registration No. 40,268
Attorney for Applicants

MSH/kjf
Washington, D.C. 20005-1503
Telephone (202) 721-8200
Facsimile (202) 721-8250
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